GABELOVA, N.A.; KOBLIKOV, V.V.

"Frequencies and the shape of NH and ND bands in muscle proteins and their relation to the conformation of the polypeptide chain."

Report presented at the Spectroscopicum, 11th Intl. Colloq, Belgrade, Yug, 30 Sep - 4 Oct 63.

KOBLIKOVA, A. G.

Koblikova, A. G. - "Current view of the theory of gluing wood," Trudy Lesotekhn. akad. im. Kirova, No 65, 1949, p. 121-24, - Bibliog: 11 items

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

KOBLIKOVA, A.G., kandidat tekhnicheskikh nauk.

Hygroscopy of glued plywood. Der. i lesokhim. prom. 3 no.12: 7-11 D '54. (MLRA 8:1)

1. Ukrainskaya ordena Trudovogo Krasnogo Znameni sel'skokhozyaystvennaya akademiya.
(Plywood)

KOBLIKOVA, A.G.

BERDINSKIKH, I.P.; SIKORSKIY, Yu.A.; KOBLIKOVA, A.G.

Wood permittivity. Der.prom.4 no.9:16-17 S '55. (MLRA 8:11)

1. Ukrainskaya ordena Trudovogo Krasnogo Znameni sel'skokhozyay-stvennaya akademiya

(Dielectric heating)

KOBLIKOVA A.G

Category : USSR/Electricity - Dielectrics

G-2

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 1528

Author : Berdinskiy, I.P., Sikorskiy, I.A., Koblikova, A.G.
Title : On the Dielectric Constant of Lumber

Orig Pub : Derevoobrabat. prom-st', 1955, No 9, 16-17

Abstract : No abstract

Card : 1/1

KOBLIKOVA, A.G., kandidat tekhnicheskikh nauk.

Ageing beat and casein-glued furniture elements. Der.prom. 4 no.11:8-9 N '55. (MLRA 9:2)

1.Ukrainskaya sel'skokhozyaystvennaya akademiya.
(Veneers and veneering) (Furniture industry)

Category : RUMANIA/Electricity - Dielectrics G-2

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 1529

Author : Berdinski, I.P., Sikorski, I.A., Koblikova, A.G.
Title : On the Dielectric Constant of Lumber

Orig Pub : An. Rom.-Sov. Ser. silvicult.-ind. lemn. si hirt., 1956, 10, No 1, 122,125

Abstract : Translation from the periodical "Derevoobrabatyvayushchaya promyshlennost' " [Woodworking Industry] (see Ref. Zhur. Fiz, 1957, 1528).

Card : 1/1

KOBLIKOVA, A.G., kand.tekhn.nauk

Pressing furniture units and parts with simultaneous finishing.
Der.prom. 7 no.12:1-3 D'58. (MIRA 11:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut fanery i mebeli.
(Woodwork) (Finishing)

KOBLIKOVA, A.G.; ZABOZLAYEV, B.S.; BARON, R.M.

Coating furniture parts with paper in finishing them with nitro enamel. Der.prom. 8 no.1:21 Ja '59. (MIRA 12:1)
(Wood finishing)

KOBLIKOVA, A.G., kand.tekhn.nauk; MATSKEVICH, T.S., insh.

Pressing furniture parts and subassemblies from wood shavings.
Der.prom. 8 no.12:1-4 D '59. (MIRA 13:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut fanery i mebeli.
(Wood, Compressed) (Furniture)

KOBLIKOVA, A.G., kand.tekhn.nauk; MOSKOZOV, N.A., kand.tekhn.nauk; MATSKEVICH, T.S., insh.

Box panel components made from wood particles. Der.prom. 9 no.10:7-8 O '60. (MIRA 13:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut fanery i mebeli.
(Wood, Compressed)

KOBLIKOVA, Aleksandra Georgiyevna, dots., kand. tekhn. nauk;
KASHINA, T.S., dots., kand. tekhn. nauk, retsenzent;
RODIONOV, S.V., dots., kand. tekhn. nauk, otv. red.;
KIRILLOVA, L.D., red.

[Glues in woodwork; lectures from the course "Technology of the manufacture of glued materials and plates" for students of the Faculty of the Mechanical Technology of Wood] Klei v derevoobrabotke; lektsii po kursu "Tekhnologiia proizvodstva kleenykh materialov i plit" dlia studentov fakul'teta mekhanicheskoi tekhnologii drevesiny. Leningrad, Vses. zaochnyi lesotekhn. in-t, 1962. 115 p. (MIRA 17:7)

KOBLIKOVA, Aleksandra Georgiyevna, dots., kand. tekhn. nauk;
KUZ'MINOV, G.P., dots., kand. tekhn. nauk, retsenzent;
CHUDNOV, B.S., dots., kand. tekhn. nauk, retsenzent;
SOKOLOV, P.V., dots., kand. tekhn.nauk, otv. red.;
BEZGODOVA, L.V., red.

[Hydrothermal processing of wood; calculations of kilns for drying lumber in superheated steam. Manual on course planning for the students of the faculty of the mechanical technology of wood] Gidrotermicheskaia obrabotka drevesiny; raschet kamer dlia sushki pilomaterialov v srede peregretogo para. Rukovodstvo k kursovomu proektirovaniiu dlia studentov fakul'teta mekhanicheskoi tekhnologii drevesiny. Leningrad, Vses. zaochnyi lesotekhn. in-t, 1963. 82 p.
(MIRA 17:7)

MIKHAYLOV, Aleksey Nikolayevich, dots., kand. tekhn. nauk;
VASECHKIN, Yu.V., dots., kand. tekhn.nauk, retsenzent;
KOBLIKOVA, A.G., dots., kand. tekhn.nauk, otv. red.;
BEZGODOVA, L.V., red.

[Ways for improving the technology and technique of veneer gluing; lectures in the course "Technology of the production of gluing materials and slabs" for the students of the faculty of mechanical technology of wood] Puti sovershenstvovaniia tekhnologii i tekhniki skleivaniia fanery; lektsiia po kursu "Tekhnologiia proizvodstva kleemykh materialov i plit" (dlia studentov fakul'teta mekhanicheskoi tekhnologii drevesiny). Leningrad, Vses. zaochnyi lesotekhn. in-t, 1964. 53 p. (MIRA 17:12)

KOBLIKOVA, Aleksandra Georgiyevna, dots., kand. tekhn. nauk;
CHUDNOV, B.S., dots., kand. tekhn. nauk, retsenzent;
SOKOLOV, P.V., dots., kand. tekhn. nauk, otv. red.

[Hydrothermal processing of wood; systems for intensive drying of lumber. Lecture for students of the Faculty of the Technology of Mechanical Wood Processing] Gidrotermicheskaia obrabotka drevesiny; reshimy dlia intensivnoi sushki pilomaterialov. Lektsiia dlia studentov fakul'teta mekhanicheskoi tekhnologii drevesiny. Leningrad, Vses. zaochnyi lesotekhn. in-t, 1964. 44 p. (MIRA 18:3)

KOBLISKA, D.

"The three-year plan for the settlement of the 1st and 2d class roads in the territory of the Technical Section for Roads at Nis."

p. 39 (Put I Saobracaj) No. 5/6, May/June 1957
Belgrade, Yugoslavia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

KOBLICKA, Slobodan, ing. (Nis)

Determining additional constants of the Wild basis stadia.
Geod list 17 no.10/12:339-343 O-D '63.

1. Tehnicki fakultet, Nis.

KOBLISKA, Slobodan, ing. (Mis)

Excentricity of sighting marks of the Wild Works. Geod list 16 no.10/12:374-377 O-D '62.

KOBLITSKAYA, A.F.

Significance of the lower reaches of the Volga Delta for the spawning of fishes. Vop. ikht. no.9:29-54 '57. (MIRA 11:1)

1. Astrakhanskiy gosudarstvennyy zapovednik.
(Volga Delta--Fishes)

KOBLITSKAYA, A.Y.

Shifting of spawning grounds in the lower reaches of the Volga Delta. Trudy Okean. kom. 5:236-242 '59. (MIRA 13:6)
(Volga Delta region--Fishes)

LAVROVSKIY, Aleksandr Aleksandrovich; KUROCHKIN, Yu.F., otv.red.; LEBEDEVA, L.S., kand.biolog.nauk, red.; BELEVICH, Ye.F., red.; ZABLOTSKIY, V.I., red.; KOBLITSKAYA, A.F., red.; LUGOVOY, A.Ye., red.; KLIMOVA, Z.I., tekhn.red.

[Wild boar in the Volga Delta.] Kaban v del'te Volgi. Astrakhan', Izd-vo "Volga," 1962. 66 p. (Astrakhanskii zapovednik. Trudy, no. 7). (MIRA 17:2)

KUROCHKIN, Yu.V.; GOMBUKOV, K.V.; KOBLITSKAYA, A.F.

Cases of disease and mass death of fishes in the lower part of the Volga Delta. Trudy sov.Ikht.kom. no.9:153-155 '59.
(MIRA 13:5)

1. Astrakhanskiy gosudarstvennyy zapovednik.
(Volga Delta--Carp--Diseases and pests)

BRUMSHTEYN, M.S.; VISHNEVETSKIY, F.Ye.; GORBUNOV, K.V.; KOBLITSKAYA, A.F.; KRINITSKIY, V.V.; KUROCHKIN, Yu.V.; MOSKALENKO, A.V.

Causes of mass disease of the common carp in the Volga Delta; preliminary report. Vop.ikht. no.14:175-181 '60. (MIRA 13:8)

1. Astrakhanskiy gosudarstvennyy zapovednik i kafedra patologicheskoy anatomii Astrakhanskogo meditsinskogo instituta.
(Volga Delta--Carp--Diseases and pests)
(Water--Pollution)

KOBLITSKAYA, A.F.

Effect of changes in different environmental factors on the nature and success of spawning of partially migratory fishes in the lower part of the Volga Delta. Trudy sov. Ikht. kom. no.13:265-276 '61. (MIRA 14:8)

1. Astrakhanskiy gosudarstvennyy zapovednik.
(Volga Delta—Fishes)

KOBLITSKAYA, A.F.

Recent data on the biology of the goby Pomatoschistus caucasicus (Kawrajsky) Berg in the outer Volga Delta. Vop.ikht. 1 no.2:253-261 '61. (MIRA 14:6)

1. Astrakhanskiy gosudarstvennyy zapovednik.
(Volga Delata—Gobies)

KOBLITSKAYA, A.F.

Studying the one day's distribution of young fishes as one of the methods of ecologic research. Vop. ekol. 4:118-119 '62. (MIRA 15:11)

1. Gosudarstvennyy zapovednik, Astrakhan'.
(Volga Delta--Fishes--Migration)

KOBLITSKAYA, A.F.

Spawning significance of the oxbow lakes of the lower Volga Delta as related to the nature of the hydrological conditions. Trudy Astr. zap. no.5:180-200 '61. (MIRA 16:8)
(Volga Delta--Fishes) (Reproduction)

FEDORETS, G.I.; KOBLITSKIY, G.V.

From work practices of fully mechanized stoping sections in manganese ore mines. Met. i gornorud. prom. no. 2:70-72 Mr-Ap '64. (MIRA 17:9)

KOBLIZEK, Jaroslav

Precise sand casting of gray cast iron. Slevarenstvi 11 no.4:149-151 Ap '63.

1. ZTS, Tynista nad Orlici.

KOBLOV, G. A.

Structure of pericellular apparatus of the vegetative nervous system. Arkh anat., Moskva 29 no. 3:31-36 May-June 1952. (CIML 22:5)

1. Of the Department of Morphology (Head -- Prof. N. G. Kolosov, Corresponding Member AMS USSR), Institute of Physiology imeni I. P. Pavlov of the Academy of Sciences USSR.

KOBLOV, G.A.

Data on the problem of origin of age amylaceous corpuscles. Zh. nevropat. psikhiat., Moskva 53 no.10:785-789 Oct 1953. (CIML 25:4)

1. Department of Histology of Saratov Medical Institute.

USSR / Human and Animal Morphology. Nervous System. S-2
Peripheral Nervous System.

Abs Jour: Ref Zhur-Biol., No 14, 1958, 64788.

Author : Kobloy, G. A.
Inst : Not given.
Title : Neurons of Certain Extramural Ganglia and Their Sympathetic Connections.

Orig Pub: V sb.: Probl. morfol. nervn. sistemy, L., Medgiz, 1956, 43-50.

Abstract: The ganglia of the solar plexus, the cranial and caudal mesenteric, as well as the cranial cervical bundles of cats and dogs, were impregnated by the Bil'shovski-Gross method. The long and short appendixes of the nerve cells always end in special structures (ringlets or tiny loops, mace-like shapes, fibrillar plates and "soles).

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20-5-44/54

AUTHOR: Koblov, G.A.

TITLE: The Development of Polynuclear Structure in the Mesothelium of the Pericardium (Razvitiye mnogoyadernykh struktur v mezotelii perikarda)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 115, Nr 5, pp. 1011 - 1014 (USSR)

ABSTRACT: The biological significance of polynuclear structures has hitherto not been sufficiently explained. The manner of their formation, whether mitosis or amitosis, was not found for all these structures. In some cases they are a biological rule, and in others they frequently accompany malicious new growths. Continuous interest is displayed for these structures both by pathologists and by biologists. The author investigated the development of polynuclear structure in the aforementioned tissues of dogs and cats. Several authors believe that their development is in close connection with amitosis. Cells with very large nuclei and binuclear cells are found already in the case of 3 days old kittens, even though only in small quantities. At the age of 2 months they are frequent, and also trinuclear cells occur. At the age of 6 months binuclearity is the rule, in addition to 4-, 5-, and 6-nuclear

Card 1/4

The Development of Polynuclear Structure in the Mesothelium of the Pericardium

to their mass, are formed. The binuclear cells, which originate from an abortive karyokinesis, continue to divide karyokinetically. This process may, in turn, turn out to be abortive and may lead to an increase of the number of nuclei. The data mentioned show that polynuclear and polyploidal structures are formed as a result of a karyokinesis that has been interrupted at various stages. In the later stages of reconstruction such images and figures are formed from the figures of abortive karyokinesis as are described as mitosis images. The polynuclear structures are not of equal significance. Part of them has nuclei which are equal with respect to the quantity of nuclear substance. There are 4 figures and 9 Slavic references.

Koblov, G.A.

20-3-38/52

AUTHOR: Koblov, G. A.

TITLE: The Innervation of Interrenal or Cortical Corpuscles (Innervatsiya interrenalovykh, ili korkovykh, telets)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 3, pp. 494 - 495 (USSR)

ABSTRACT: The author studied the above question by means of cortical corpuscles occurring at cats in the domain of the plexus solaris. Here, a theoretically as well as practically interesting question is to be met, in the way of which the innervation of "unstable" organs (corpuscles), having for this purpose no distinct topographic place in the organism, is accomplished. The investigation was carried out after the intersection of the nervus visceralis before its entering into the plexus solaris. On the contrary to the "chromaffinitive" small isles always being present, cortical corpuscles here rather rarely occur. Their construction and innervation are described (figure 1). The character of the secretory motive innervation is different from that one of the suprarenal gland. At the latter no interlacings spinning all round ("spleteniye"-Plexus) were described. Certainly, the author succeeded (reference 1) in observing a fine interlacing together with finest nerve ends, how-

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The Innervation of Interrenal or Cortical Corpuscles

ever, they lay in the domain of the ganglion lying in the cortical substance. Beside the secretory innervation, also the sensible innervation (reference 1) was studied. The obtained results point to a certain peculiarity of the innervation of small (unstable) and large (stable) accumulations of interrenal tissue. Simultaneously, they indicate the fact that the innervation of the unstable organs and structures, having no distinct topographic place, is done in the same extent, as those which have a distinct place. Consequently, the new-developed structures are seized by the innervation as well as the old ones, viz. according to their concrete organisation. There are 2 figures, and 1 reference, 1 of which is Slavic.

PRESENTED: July 3, 1957, by N. N. Anichkov, Academician

SUBMITTED: May 13, 1957

AVAILABLE: Library of Congress

Card 2/2

KOBLOV, G.A. (Saratov ul. Kutyakova, 156a, kv.1)

KOBLOV, G.A. (Saratov, ul. Kutyakova, 156a, kv.1)

Characteristic division of the nerve cells of some vegetative ganglia in cats. Arkh. anat. gist. i embr. 42 no.2:83-93 F '62. (MIRA 15:2)

1. Kafedra gistologii i embriologii (zav. - prof. G.A.Koblov) Saratovskogo meditsinskogo instituta.
(NERVOUS SYSTEM, AUTONOMIC)
(CELL DIVISION (BIOLOGY))

KOBLOV, G.A.

Experimental data on the relations between the nerve cells in the peripheral vegetative ganglia. Report. No. 1: The structure and form of the intraganglionic synapses. Biul.eksp.biol.i med. 54 no.7:94-98 Jl '62. (MIRA 15:11)

1. Iz kafedry gistologii (zav. - prof. G.A.Koblov) Saratovskogo meditsinskogo instituta. Predstavlena deystvitel'nym chlenom AMN SSSR V.N.Chernovskim.
(NERVOUS SYSTEM, AUTONOMIC)

KOHLOV, G.A., prof.

Experimental data on the connections between nerve cells in the peripheral vegetative ganglia. Report No.2: Complex forms of intraganglionic connections. Biul. eksp. biol. i med. 55 no.2:113-116 F'63. (MIRA 16:6)

1. Iz kafedry gistologii (nav. - prof. G.A. Kohlov) Saratovskogo meditsinskogo instituta. Predstavlena deystvitel'nym chlenom AMN SSSR V.N. Ternovskim.
(SOLAR PLEXUS)

KOBLOV, G.A. (Saratov)

Answer to the critics. Arkh. anat., gist. i embr. 49 no.11: 85-92 N '65. (MIRA 19:1)

BOBROVSKIY, Viktor Iosifovich; GRIDINA, Lidiya Vasil'yevna; BASKIN, Grigoriy Samoylovich; KOBLOV, G.Ya., kand. fil. nauk, dots., red.; KOROTKIY, V.M., red.; TIKHONOVA, Ye.A., tekhn. red.

[A course of English for seamen] Kurs angliiskogo iazyka dlia morskikh uchilishch. Moskva, Izd-vo "Morskoi transport," 1962. 394 p. (MIRA 16:6)
(English language--Technical english)
(Naval art and science--Terminology)

KOBLOV, L.F., aspirant (Leningrad, 2-ya Sovetskaya ul., d.16, kv.2)

Determination of the degree of arterial obstruction and evaluation of the collateral circulation in obliterating arterial diseases of the lower extremities. Vest.khir. 85 no.12:75-77 D '60.
(MIRA 14:1)

1. Iz khirurgicheskoy kliniki (zav. - prof. A.N. Filatov) Leningradskogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skogo instituta perelivaniya krovi.
(ARTERIES--DISEASES)

KOBLOV, L. F.

Evaluation of the peripheral blood circulation after reconstructive operations on the vessels in obliterating diseases of the arteries of the lower extremities. Eksper. khir. no.3:39-45 '62. (MIRA 15:7)

1. Iz khirurgicheskoy kliniki (zav. - chlen-korrespondent AMN SSSR prof. A. N. Filatov) Leningradskogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skogo instituta perelivaniya krovi.

(LEG--BLOOD SUPPLY) (ANGIOGRAPHY)
(BLOOD VESSELS--SURGERY)

KOBLOV, M.M.

AUTHOR: Koblov, M.M. and Mikaelyan, A.L.

"Application of Ferrites for Coaxial Valve Systems,"
A-U Sci Conf dedicated to "Radio Day," Moscow, 20-25 May 1957.

PERIODICAL: Radiotekhnika i Elektronika, Vol. 2, No. 9, pp. 1221-1224, 1957, (USSR)

KOBLOV, N.

Work practices of the "Oblishilkommunstroi" Trust in Perm Province. Zhil.-kom. khoz. 10 no.8:19-20 '60. (MIRA 13:9)

1. Upravlyayushchiy trestom "Oblishilkommunstroy", g. Perm'.
(Perm Province—Apartment houses—Maintenance and repair)

KOBLOV, R.K.

What happens to some defoliants in plants. Vop. biol. i kraev. med. no.4:63-67 '63. (MIRA 17:2)

25(1) PHASE I BOOK EXPLOITATION SOV/3292

Koblov, Viktor Alekseyevich

Tipizatsiya tekhnologicheskikh protsessov vytyazhki tsilindricheskikh detaley. (Standardization of Cupping Processes) Moscow, Mashgiz, 1959. 92 p. 4,000 copies printed.

Reviewer: V. V. Ivanov, Engineer; Ed.: T. M. Somova, Engineer; Tech. Ed.: N. A. Dugina.

PURPOSE: This book is intended for technical personnel who deal with cold stamping of metals.

COVERAGE: The author presents a method of standardizing cupping process; gives the economic basis for manufacture of standard cupping dies and establishing flow sheets, and describes the nomogram method of determining cupping values with a greater degree of accuracy than by the use of tables. He also presents the design and construction of cupping dies. No personalities are mentioned. There are 15 references, all Soviet.

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TABLE OF CONTENTS:

Card 2/5

AVAILABLE: Library of Congress

Card 5/5

VK/mg
4-26-60

KOBLOV, V.K.; KHASAPOV, B.G., master

Method for restoring the positive plates of storage batteries.
Mekh. i tepl. tiaga 4 no.11:17-18 N '60. (MIRA 13:12)

1. Nachal'nik proizvodstvenno-tekhnicheskogo otdela depo Kzyl-Orda Kazakhskoy dorogi (for Koblov). 2. Zagotovitel'nyy tsekh depo Kzyl-Orda Kazakhskoy dorogi (for Khasapov).
(Storage batteries)

KOBLOV, V.K., inzh.; KHVAN, V.R., starshiy master

Stand for adjusting TKMS-1000 tachometers. Elek. i tepl. tiaga 5 no.8:9-10 Ag '61. (MIRA 14:9)

1. Zagotovitel'nyy tsekh depo Kzyl-Orda Kazakhskoy dorogi. (Tachometer)

KOBLOV, V.N., Cand Med Sci -- (diss) "Anatomic[illegible] topographic[illegible] study of the venous canal of the mesenteric section of the human small intestine [illegible]." Stalingrad, 1957, 29 pp.with illustrations (Stalingrad State Med Inst) 200 copies (KL, 21-58, 93)

KRASIL'NIKOVA, I.P., kand. med. nauk; KOBLOV, Yu.V.

Insipid syndrome in hepatocerebral dystrophy. Sov. med. 28 no.5: 144-145 My '65. (MIRA 18:5)

1. Klinika propedevticheskoy terapii (zav. - prof. I.V.Zherdin) Volgogradskogo meditsinskogo instituta.

S/080/63/036/001/021/026
D204/D307

AUTHORS: Volkhin, V.V., Koblova, A.A. and Ponomarev, Ye. I.

TITLE: Precipitation of rhodium hydroxide from very dilute solutions by freezing

PERIODICAL: Zhurnal prikladnoy khimii, v. 36, no. 1, 1963, 212 - 214

TEXT: The present work was aimed at the precipitation of Rh hydroxide from colloidal solutions (10^{-4} - 10^{-5} moles Rh per l), since after dissolving it in H_2SO_4 of correct concentration a solution is obtained which is suitable for galvanic Rh plating. Rh sulfate solutions (0.1200 g/l) were diluted to the required concentration, the pH was adjusted to 7-9, and 20 ml samples were taken. One half was then frozen to -2 — -5°C, whilst the other half was allowed to stand for 12 hrs. The frozen samples were thawed out and were left for 5-6 hrs. It was found that freezing led to 90-97 % precipitation (particularly or 1×10^{-4} - 5×10^{-5}

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L 18131-66 EWT(m)/EWP(t)/ETC(m)-6 IJP(c) JD/AW/JW/RM SOURCE CODE: UR/0141/66/011/002/0212/0216

ACC NR: AP6007800

97
B

AUTHOR: Larikov, L. N.; Fal'chenko, V. M.; Kohlova, E. A.

ORG: Institute of Physics of Metals, AN URSR, Kiev (Instytut metalofizyky, AN URSR)

TITLE: Thermodynamic properties of thallium 27,55

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 2, 1966, 212-216

TOPIC TAGS: thallium base alloy, enthalpy, entropy, high purity metal, thermal stress, thermal effect, temperature dependence, thermal stability, free energy

ABSTRACT: The true thermal capacity within the temperature range from 293 to 523K was investigated by Sykes' method for thallium of a high degree of purity (99.999%). The thermal and volume effects were determined for the polymorphous $\beta \rightarrow \alpha$ transformation occuring in thallium at 505.3K, and the temperature dependence of the thermal expansion coefficient of thallium was obtained for the temperature range from 120 to 520K. On the basis of the results, computations were carried out for changes in the compressibility factor C_v, enthalpy, gram-atom volume, entropy, and free energy of thallium in the α and β regions. The results were compared with those in the literature. Orig. art. has: 2 figures, 5 formulas, and 2 tables. [Based on author's abstract.]

SUB CODE: 20/ 11/ SUBM DATE: 13May65/ ORIG REF: 005/ OTH REF: 019/

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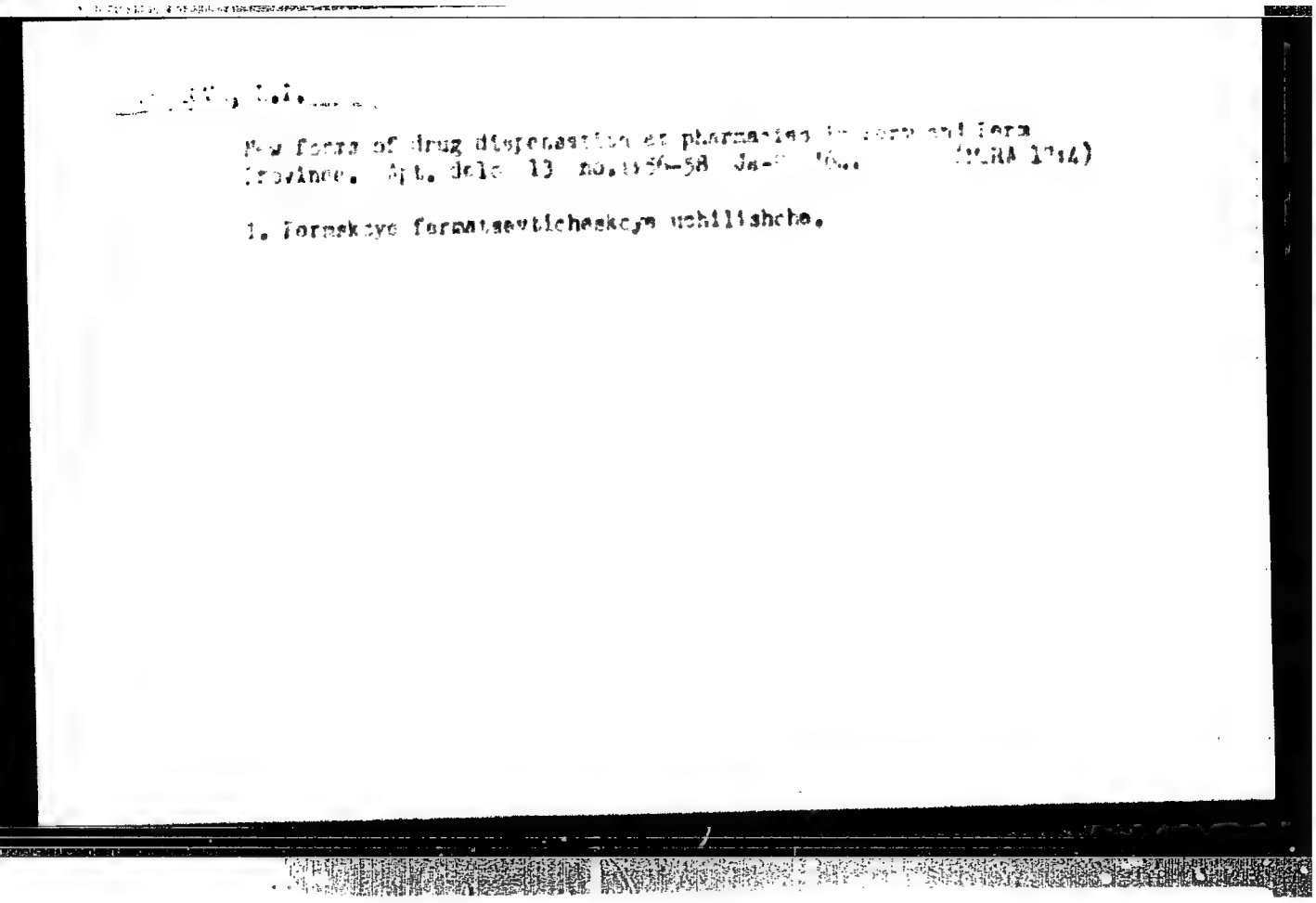
2



New forms of drug dispensation at pharmacies in rural areas
[illegible]. Apt. delo 13 no.1:56-58 Ja-[illegible]. (MIRA 17:4)

1. Tomskoye farmatsevticheskoye uchilishche.

AUTHORS: Mikaelyan, A.L., Koblova, M.M. 108-13-4-4/12

TITLE: The Use of Ferrites for the Production of Coaxial Valve Systems (Primeneniye ferritov dlya sozdaniya koaksial'nykh ventil'nykh sistem)

PERIODICAL: Radiotekhnika, 1958, Vol 13, Nr 4, pp 30-35 (USSR)

ABSTRACT: The problem of using ferrites for the production of coaxial systems is investigated. First, the conditions for the production of non-reciprocal phenomena in a coaxial conduction are dealt with. The existence of non-reciprocal phenomena in the case of coaxial conduction with a ferrite- and a dielectric plate is explained. The occurrence of such phenomena is shown by the approximation of such a system in form of a strip-shaped tubular conductor the planes of which are rolled up along the x-axis. The equation (1) for the propagation constant Γ_y of the direct wave is written down. The parameters of the magnetized ferrite are determined by the tensor of magnetic permeability. According to this equation the propagation constants of direct- and reversing waves as well as their difference which characterizes the non-reciprocal effect is calculated

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AUTHORS: Mikaelyan, A.L., Koblova, M.M. 108-13-4-4/12

TITLE: The Use of Ferrites for the Production of Coaxial Valve Systems (Primeneniye ferritov dlya sozdaniya koaksial'nykh ventil'nykh sistem)

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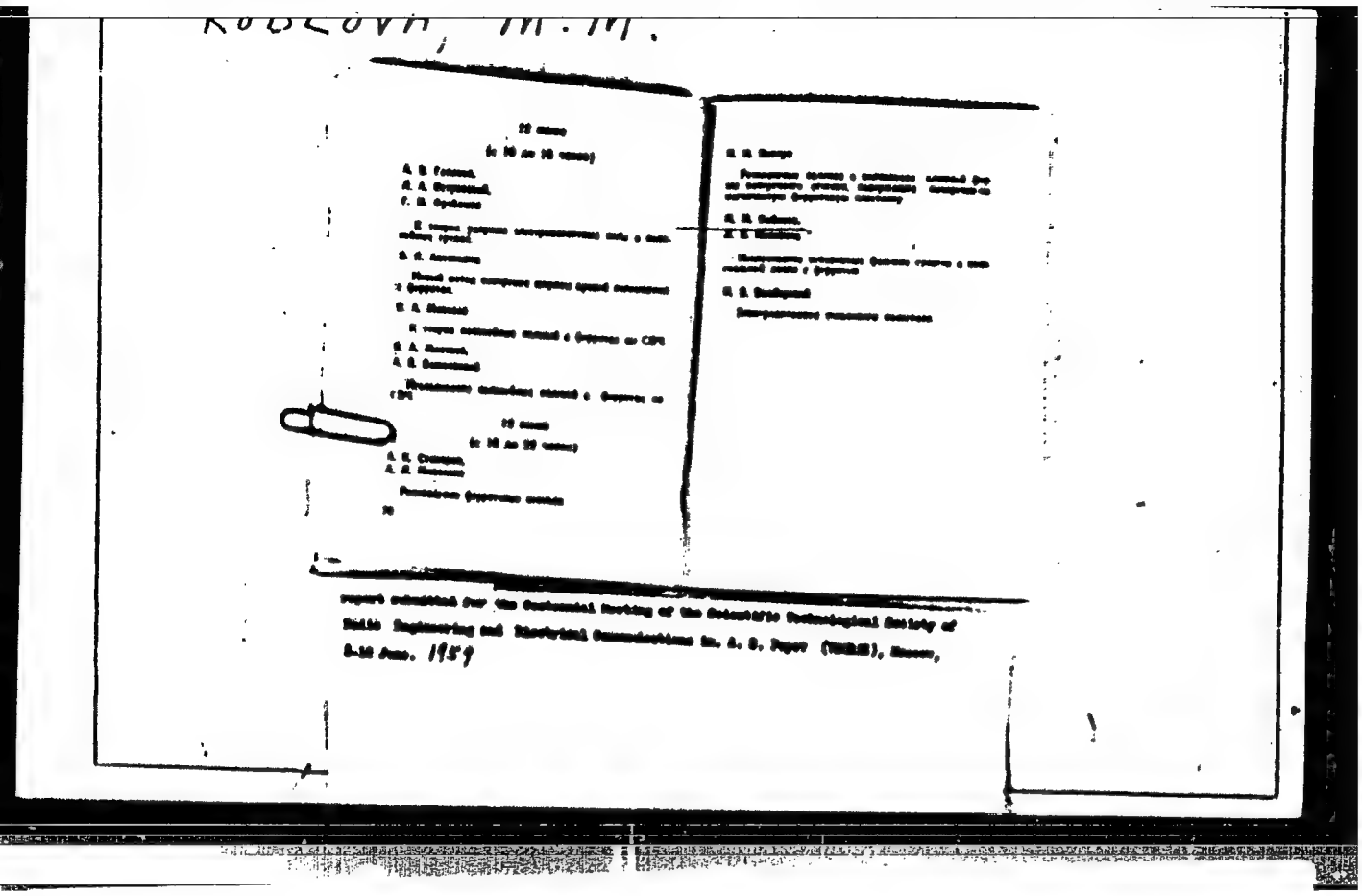
for various thicknesses and parameters of the dielectricum and of the ferrite. The results obtained by these calculations (which are not given here) show that, in the case of given parameters for the plates for the purpose of conserving the maximum non-reciprocal effect there is an optimum relation between the width of the ferrite plate and that of the dielectric plate. Non-reciprocal dying-down in a transversally magnetized ferrite-dielectric plate, which was located in the coaxial conduction, was investigated experimentally in dependence on the size and the transmissivity of the dielectric and the ferrite at a wave length of 10 cm. Besides, the non-reciprocal phase shifts were investigated for the purpose of producing coaxial phase-valves of the type of similar tubular conductors. The non-reciprocal phase shifts in the ferrites investigated were insignificant. Therefore, only the model of a resonance valve was developed. Its characteristics are given. The valve has a length of 170 mm, the diameter of the inner conductor is 7 mm, that of the exterior conductor 16 mm. The thickness of the ferrite is 3 mm, that of the dielectric 8.6 mm. The height is an optimum and amounts to 4 mm. The weight of the permanent magnet does not exceed 400 g. Within the frequency range of from 9.8 cm to 10.8 cm the losses of the reversing wave are more than 30 db, those



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AUTHORS: Koblova, M. M., Moskvina, L. V.

TITLE: Investigation of Nonreciprocal Phase Shifts in a Coaxial Line With Ferrite

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol 5, Nr 1, pp 162-166 (USSR)

ABSTRACT: Designs of coaxial systems utilizing unequal phase shifts for opposite directions of propagation are not known as yet. However, coaxial systems analogous to waveguide circulators can be built. (1) Calculation of nonreciprocal phase shift. Such a calculation was made by A. L. Mikaelyan (Use of Ferrites in Wave Guide Technology, Doctor's thesis, USSR, 1956) for a coaxial line represented in Fig. 1 as a strip waveguide with a ferrite-dielectric plate. In this case, the dimensions of the coaxial line do not enter into the equation and cannot be evaluated. Some authors suggested using

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Investigation of Nonreciprocal Phase Shifts in a Coaxial Line With Ferrite

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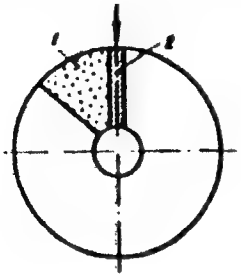
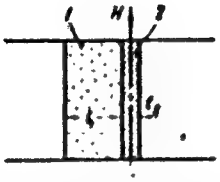


Fig. 1. Cross section of coaxial line containing a ferrite-dielectric plate: (1) dielectric; (2) ferrite.

Fig. 2. Plane-parallel analogue of coaxial line containing a ferrite-dielectric plate; (1) dielectric; (2) ferrite.



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a plane-parallel analogue in which the cross section of the coaxial line with a ferrite plate is considered as an infinite periodic structure consisting of strata (Fig. 3). Using the method of partial waves the expressions for the component field E_z and h_y in each layer can be written as:

$$
\begin{aligned}
E_{zI} &= (A_1 e^{-i\gamma_{1x}x} - B_1 e^{i\gamma_{1x}x}) e^{-i\gamma_{1y}y},\\
h_{yI} &= -\frac{\omega\varepsilon_1}{\gamma_1^2}\gamma_{1x}(A_1 e^{-i\gamma_{1x}x} + B_1 e^{i\gamma_{1x}x}) e^{-i\gamma_{1y}y},\\
E_{zII} &= (A_2 e^{-i\gamma_{2x}x} - B_2 e^{i\gamma_{2x}x}) e^{-i\gamma_{2y}y},\\
h_{yII} &= \frac{\omega\varepsilon_2}{\gamma_2^2}\Big[-A_2\Big(\gamma_{2x} + i\frac{k}{\mu}\gamma_{2y}\Big) e^{-i\gamma_{2x}x} +\\
&\quad + B_2\Big(-\gamma_{2x} + i\frac{k}{\mu}\gamma_{2y}\Big) e^{i\gamma_{2x}x}\Big] e^{-i\gamma_{2y}y},\\
E_{zIII} &= (A_3 e^{-i\gamma_{3x}x} - B_3 e^{i\gamma_{3x}x}) e^{-i\gamma_{3y}y},\\
h_{yIII} &= -\frac{\omega\varepsilon_3}{\gamma_3^2}\gamma_{3x}(A_3 e^{-i\gamma_{3x}x} + B_3 e^{i\gamma_{3x}x}) e^{-i\gamma_{3y}y}.
\end{aligned}
\qquad (1)
$$

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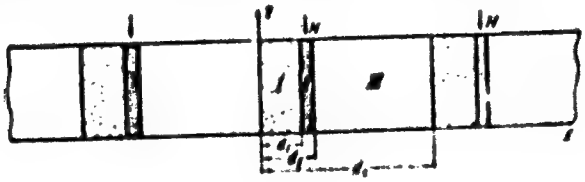
Boundary cases:

$$E_{z\,I}|_{x=0} = E_{z\,III}|_{x=d_3},\quad E_{z\,I}|_{x=d_1} = E_{z\,III}|_{x=d_4},\quad E_{z\,II}|_{x=d_2} = E_{z\,III}|_{x=d_5},$$
$$h_{y\,I}|_{x=d_1} = h_{y\,III}|_{x=d_4},\quad h_{z\,I}|_{x=d_1} = h_{z\,II}|_{x=d_2},\quad h_{y\,II}|_{x=d_2} = h_{y\,III}|_{x=d_5}, \qquad (2)$$

result in six linear equations with six unknowns. In the case being considered, there are three layers: (I) dielectric; (II) ferrite; (III) air (see Fig. 3).



(Fig. 3)

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Caption to Fig. 3 on Card 5/13

Fig. 3. Infinite plane-parallel analogue of coaxial line, containing a ferrite-dielectric plate and filled with a periodic system: dielectric, ferrite, air.

Quantity d_3 is the average circumference of the cross section of the coaxial line. Thus, its dimensions are taken into consideration. d_1 and $(d_2 - d_1)$ are also the mean thicknesses of the dielectric and the ferrite, respectively. The solution of this system results in a transcendental equation for the propagation constant γ_y (Eq.3) The presence of the term $(k/\mu \cdot \gamma_y)$ in first power stipulates the nonreciprocal properties of the system. The quantities ε_1, μ_1, k, γ_y used in the equation are complex. If calculations are made for that part of the magnetic field where the ferrite is saturated, but far off the magnetic resonance, the losses can be ignored

and ε, μ, k can be considered real values. Then γ_y is a real value, too, and determines the phase shift of the system. The calculation of nonreciprocal shifts for three coaxial cables containing CrMn-ferrite with a magnetization $4\pi M_s = 500$ gauss, $\Delta H = 250$ oersted, $\varepsilon_{ph} = 4.4$, and dielectric with $\varepsilon_d = 15\ \varepsilon_o$ showed that the magnitude of a nonreciprocal shift of a 10 cm wave at an optimal selection of dielectric and ferrite thickness is rather high: 37°/cm. The calculations were made for two magnitudes of the magnetic field: $H_1 = 600$ oersted ($\mu = 0.48$; $k = 0.44$; $\mu_\perp = 0.08$) and $H_2 = 400$ ($\mu = 0.59$; $k = 0.39$; $\mu_\perp = 0.21$). Fig. 4, 5, and 6 show the curves of nonreciprocal phase shift vs. thickness of dielectric at different ferrite thicknesses.

Investigation of Nonreciprocal Phase Shifts in a Coaxial Line With Ferrite

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$$\left[\frac{\mu_\perp}{\mu_0}\frac{\gamma_{1z}}{\gamma_{1z}}+\frac{\mu_1}{\mu_\perp}\frac{\gamma_{1z}^0}{\gamma_{1z}\gamma_{2z}}\left[1+\left(\frac{k}{\mu}\frac{\gamma_y}{\gamma_{1z}}\right)^2\right]\right]\sin a\sin b\cos c+$$

$$+\left[\frac{\mu_1}{\mu_0}\frac{\gamma_{2z}}{\gamma_{1z}}+\frac{\mu_0}{\mu_\perp}\frac{\gamma_{1z}^0}{\gamma_{2z}\gamma_{1z}}\left[1+\left(\frac{k}{\mu}\frac{\gamma_y}{\gamma_{2z}}\right)^2\right]\right]\cos a\sin b\sin c+$$

$$+\left[\frac{\mu_0}{\mu_1}\frac{\gamma_{1z}}{\gamma_{2z}}-\frac{\mu_1}{\mu_0}\frac{\gamma_{2z}}{\gamma_{1z}}\right]\frac{k}{\mu}\frac{\gamma_y}{\gamma_{2z}}\sin a\sin b\sin c+ \qquad (3)$$

$$+2(1-\cos a\cos b\cos c)+\left[\frac{\mu_0}{\mu_1}\frac{\gamma_{1z}}{\gamma_{2z}}+\frac{\mu_1}{\mu_0}\frac{\gamma_{2z}}{\gamma_{1z}}\right]\sin a\cos b\sin c=0,$$

where

$$a=\gamma_{1z}d_1;\ b=\gamma_{2z}(d_2-d_1);\ c=\gamma_{0z}(d_3-d_2);\ |\mu|=\begin{vmatrix}\mu & -ik & 0\\ ik & \mu & 0\\ 0 & 0 & \mu_0\end{vmatrix};$$

$$\mu_\perp=\frac{\mu^2-\mu^2}{\mu};\ \mu_1=1;\ \mu_0=1;\ \gamma_1^2=\omega^2\varepsilon_0\mu_0;\ \gamma_{1z}=\sqrt{\gamma_1^2-\gamma_y^2}.$$

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Investigation of Nonreciprocal Phase Shifts in a Coaxial Line With Ferrite

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The characteristic impedance of the line was 50 ohms and dimensions were D/d = 18 mm/7.5 mm; 28 mm/12.6 mm; 44 mm/19.7 mm (H_1 = 600 oersted). The influence of the thickness of ferrite is shown in Fig. 7 for a coaxial line with D/d = 18 mm/7.5 mm. Nonreciprocal shifts for a coaxial line with d_3 = 64 mm are shown in Fig. 8. The activity of the system drops in this case almost to one-half. Some experimental results: Tests were made with a 10 cm wave over a coaxial line, d_3 = 64 mm (D = 28 mm, d = = 12.6 mm) and with ferrite-dielectric plates 100 mm long. The results of the tests expressing nonreciprocal shift (a) and losses (b) are shown in Fig. 9. The optimal thickness of the dielectric as found experimentally is 8 mm for a 3-mm-thick ferrite and coincides with the theoretical. In their conclusions the authors confirm that it is possible to achieve adequately high phase shifts in

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Investigation of Nonreciprocal Phase Shifts in a Coaxial Line With Ferrite

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coaxial lines if sufficiently thick ferrites are used. The preparation of suitable ferrite with small losses will make possible designing of coaxial lines analogous to waveguide circulators. There are 9 figures; and 5 references, 3 Soviet, 2 U.S. The U.S. references are: B. J. Duncan, L. Swern, K. Tomiyas, G. Hannwacker, Proc. I. R. E., 1957, 45,4, 483; M. Sucher, H. J. Carlin, Coaxial Line Non-reciprocal Phase Shifters, J. Appl. Phys., 1957, 28, 8, 921.

SUBMITTED: August 17, 1959

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Investigation of Nonreciprocal Phase Shifts in a Coaxial Line With Ferrite

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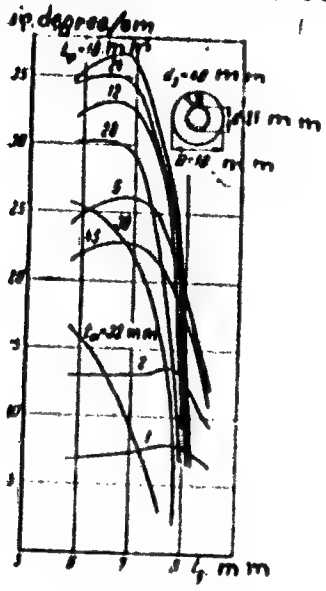

Fig. 4

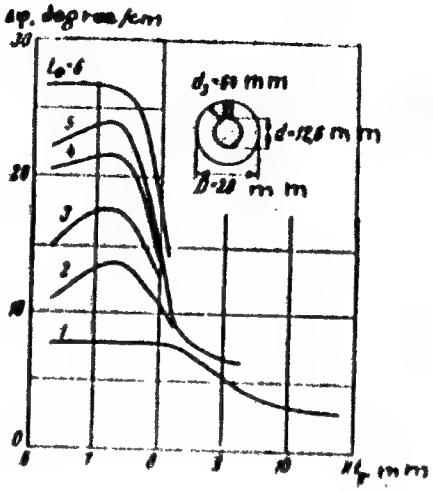

Fig. 5

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Investigation of Nonreciprocal Phase Shifts in a Coaxial Line With Ferrite

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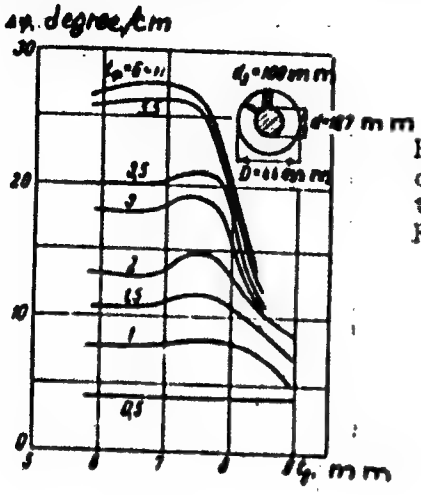

Figs. 4, 5, 6. Phase shift vs. thickness of dielectric plate and different ferrite thicknesses: Fig. 4, coaxial = 18/7.5; Fig. 5, 28/12.6; Fig. 6, 44/19.7.

Fig. 6

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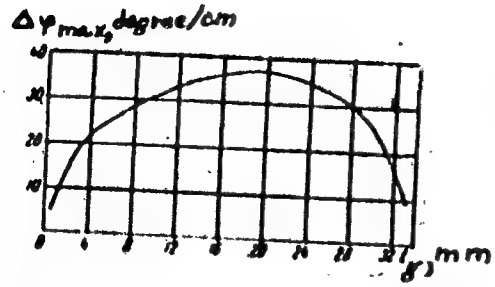

Fig. 7. Optimal phase shift vs. ferrite thickness.

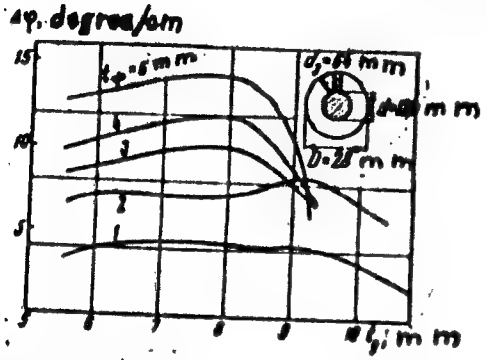

Fig. 8. Phase shift vs. thickness of dielectric plate for different ferrite plates (coaxial 28/12.6, H = 400 oersted).

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Investigation of Nonreciprocal Phase Shifts in a Coaxial Line With Ferrite

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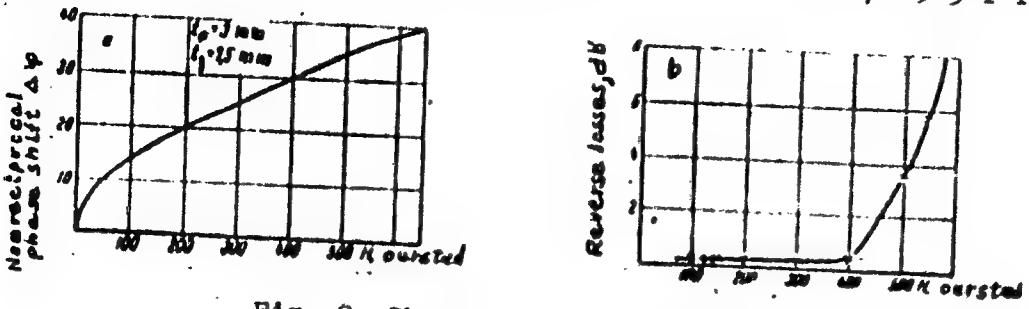

Fig. 9. Phase shift and losses vs. external magnetizing field.

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SOV/109-5-2-12/26

AUTHORS: Mikaelyan, A. L., Stolyarov, A. K., Koblova, M. M.

TITLE: Resonance Ferrite Systems with Large Value Ratio

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol 5, Nr 2, pp 269-277 (USSR)

ABSTRACT: Reference is made to previous work by the authors (this Journal, 1957, 12, 10, 17; and 1960, 5, 5) on resonance in waveguides with ferrites. If thick ferrite plates do not fill the full width between the wide sides of the waveguide, the resonance of direct and reverse waves occurs at different values of the constant field. The article contains experimental results of this phenomenon. (1) Experimental results in case of pure [illegible]

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[illegible]nance Ferrite Systems with Large Value [illegible] Ratio

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[illegible] shows resonance curves of a direct wave for differ[illegible] ferrite positions in the wave guide. The [illegible] of the reverse wave was observed at a constant [illegible] field marked on the figure by a dotted line. [illegible] ferrite was used with saturation magnetization of [illegible]50 gauss and an attenuation factor δ [illegible].1. Figure [illegible] also shows the influence of the ferrite size on the shape of resonance loss curves for a direct wave. A noticeable separation in the resonance frequencies of the direct and reverse waves in observed only in case when the ferrite plate has an adequate thickness and, consequently, distorts the field structure of an empty waveguide. If very thin ferrite plates are used, the resonance fields converge.

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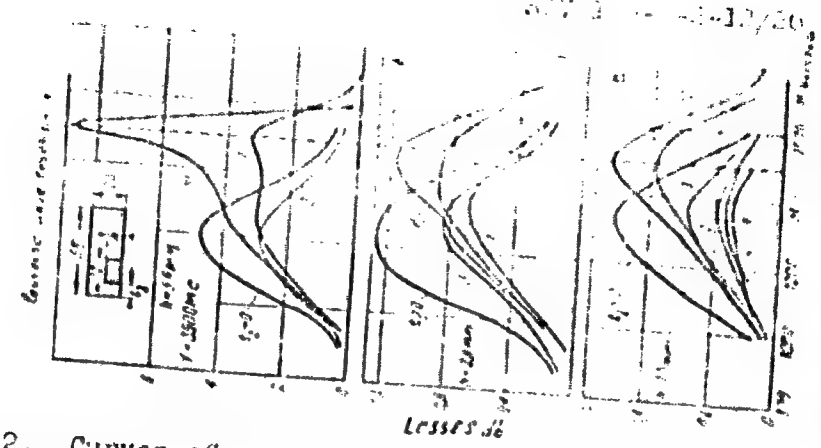

Fig. 2. Curves of resonance absorption of direct wave in ferrite plates of various thicknesses.

When the ferrite plate is moved away from the broad side of the waveguide the field shift of the direct wave in relation to that of the reverse wave decreases

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and reaches its minimum with the plate in the center of the waveguide. The same tests were repeated with KhMM-1 ferrite which has a magnet saturation twice that of KhM-3 (1,050 gauss). The results are shown in Fig. 4. The divergence of direct and reverse wave resonance is more pronounced than for KhM-3 ferrite, and the curve has two humps; the second maximum corresponding to the reverse wave resonance. The first maximum coincides with the corresponding transverse ferromagnetic resonance. The phenomena described above are of considerable practical importance, as they permit a sizeable increase in the forward:reverse ratio obtainable from these resonators.

Resonance Ferrite Systems with Large Value Ratio

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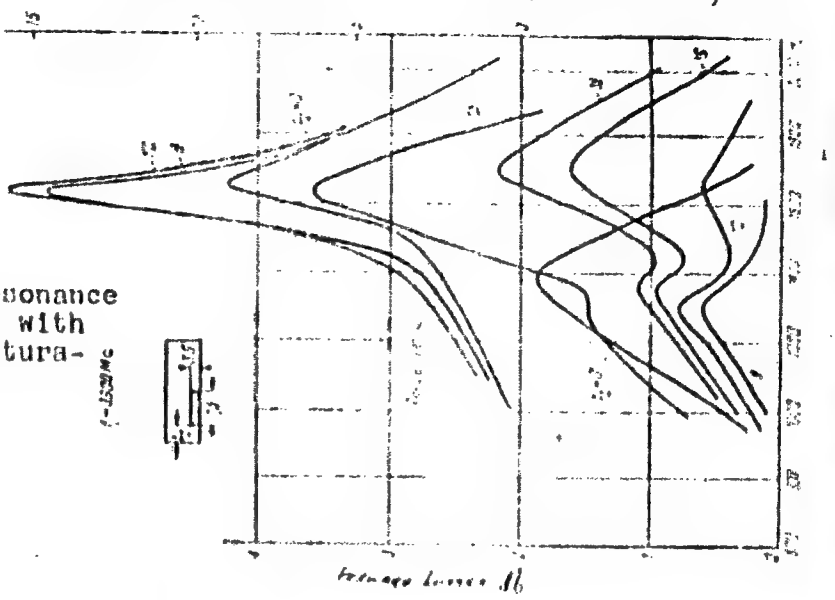

Fig. 4. Curves of resonance absorbtion in ferrite with high magnetization saturation (1,050 gauss).

Resonance Ferrite Systems with Large Values Ratio

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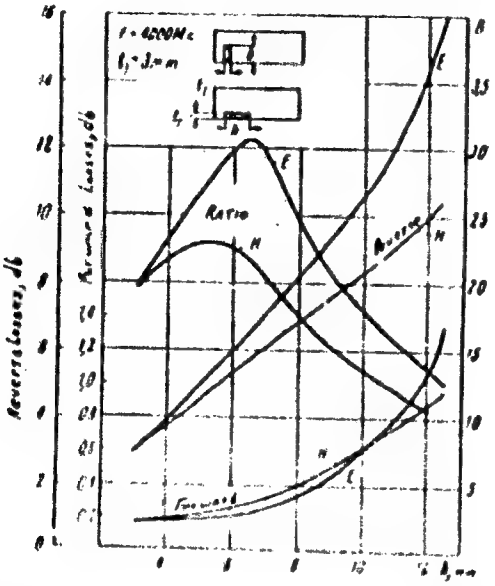

Fig. 5. Relations of valv properties of the system t the width of the ferrite plate.

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Resonance Ferrite Systems with Large Value Ratio

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According to theory, attenuating properties of plate in H plane must improve with diminishing plate width with a limit value

$$B = 4/\delta, \qquad (1)$$

where δ is the attenuation factor as determined from the width of the resonance line. However, the experiments show that at an optimal h, the attenuation ratio is higher than for very thin ferrites, i.e., the limits of the formula are exceeded. (2) Resonance phenomena in the presence of a dielectric: Figure 6 shows the dependence of the losses in direct and reverse wave on the field intensity for a ferrite with a dielectric layer.

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Resonance Ferrite Systems with Large Value Ratio

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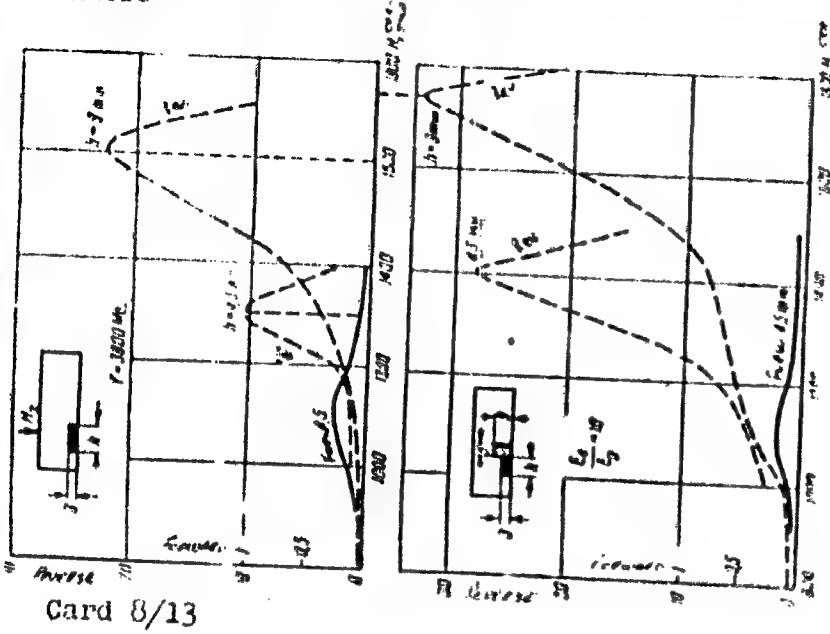

Fig. 6. Influence of an additional dielectric layer on the shape of the resonance curves.

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For comparison, the upper part of the drawing shows curves for ferrite alone. A comparison shows that a dielectric layer causes the shift of reverse wave resonance toward stronger fields, while the direct wave resonance remains unchanged. The same tests were repeated with the KhM-3 ferrite (magnetic saturation, 150 gauss). In this case an additional dielectric layer did shift the resonance field of the reverse wave in direction of stronger fields while the field of direct wave resonance remains unchanged. Therefore, the use of ferrites with higher magnetic saturation is recommended for a greater separation of direct and reverse wave frequencies. By changing ferrite parameters and dielectric sizes, resonators can be designated with a greater attenuation ratio of direct and reverse wave than indicated in (1) for very thin ferrites. Experiments confirmed the above, as is shown in Fig. 9.

Resonance Ferrite Systems with Large Value Ratio

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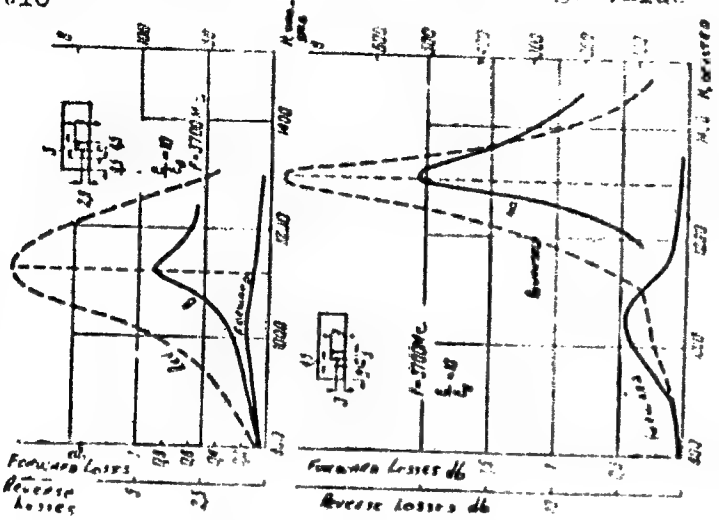

Fig. 9. Characteristics of attenuators using ferrites with magnetic saturation 500 and 1,000 gauss.

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Resonance Ferrite Systems with Large Value Ratio

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Ferrite KhMM-1 shows an attenuation ratio of 500 at the instant of maximum attenuation of the reverse wave, against 400 according to (1). Discounting dielectric losses $\varepsilon'' = 5 \cdot 10^{-3} \varepsilon_0$, in the ferrite the actual figure is 300. Thus the experiment achieved a figure nearly twice as high as that considered possible. It is evident that an increase in attenuation ratio with KhMM-1 ferrite is caused by a separation of direct and reverse wave resonance fields. (3) Characteristics of valves: Using the data of the above experiments two valves were constructed of which one can be used for radio relay lines in the 8 cm, and the other in the 3 cm wave range. Two types of ferrites were used: KhMM-1 (magnetic saturation 1,050 gauss) and NM-2 (magnetic saturation 2,800 gauss). Their characteristics are shown in Figs. 10 and 11.

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Resonance Ferrite Systems with Large Value Ratio

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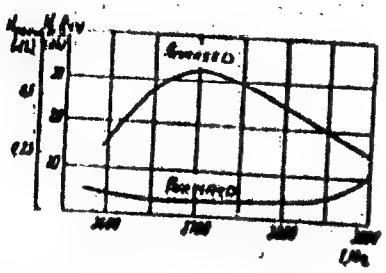

Fig. 10. Frequency Characteristics of ferrite elements

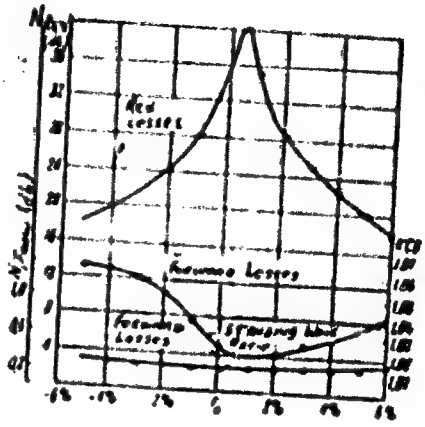

Fig. 11. Characteristic of the second valve.

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D266/D308

AUTHORS: Mikaelyan, A.L., and Koblova, M.M.

TITLE: Transmission of energy in crossed waveguides with the aid of magnetized ferrites

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 10, 1962, 1835 - 1838

TEXT: The purpose of the paper is to present a mathematical analysis of a device consisting of two crossed rectangular waveguides, connected with the aid of a small ferrite sphere. In the absence of magnetization there is no coupling between the two waveguides. Applying, however, an axial magnetic field H_0 and choosing the parameters appropriately, a nearly perfect transmission can be achieved. If the dimensions of the ferrite are small the magnetization can be regarded as homogeneous and the ferrite can be replaced by two magnetic wall currents. The electric and magnetic field far from the junction can be obtained from the magnetic current with the aid of L.A. Vaynshteyn's formulas. Assuming ferromagnetic resonance and neglecting thermal losses, the power in both waveguides is calculated and

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the transmission coefficient is obtained in the following form

$$\tau = \left[\frac{2\left(\frac{4\pi M_0}{2\Delta H}\right) \frac{2\pi V_f}{ab\lambda_B}}{1 + 2\left(\frac{4\pi M_0}{2\Delta H}\right) \frac{2\pi V_f}{ab\lambda_B}} \right]^2 \qquad (16)$$

where M_0 - d.c. polarization, H - linewidth of the magnetic field, V_f - volume of the ferrite, a, b - dimensions of the rectangular waveguides, λ_B - guide wavelength. Several examples are worked out and it is concluded that in practical case $2\Delta H$ should be smaller than 0.5 oersted. There are 4 figures.

SUBMITTED: May 4, 1962

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ACCESSION NR: AP3004953 S/0108/63/018/008/0074/0080

AUTHOR: none

TITLE: Nineteenth All-Union Session of NTORIE im. A. S. Popov (see association) Celebrating the Day of Radio, closed on 11 May 1963

SOURCE: Radiotekhnika, v. 18, no. 8, 1963, 74-80

TOPIC TAGS: conference, session, electronics conference, electronics session

ABSTRACT: The Session included 2 plenary meetings and 18 section meetings. There were 272 reports delivered by Soviet and 12 reports delivered by foreign scientists and engineers. The total number of specialists participating in the Session was 1,800, including 25 foreign representatives. Four reports before the first plenary meeting were made by: V. I. Siforov, Corresponding Member of AN SSR and Chairman of the NTORIE Central Board, on the laws of development of natural sciences and electronics; Academician A. L. Mints on toroidal

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electron accelerators; Professor G. Y. Braude on the 25th anniversary of Soviet TV; and a French engineer, A. Ayeberg, on international publications in radio and electronics. Two reports before the closing plenary meetings were made by: M. L. By*khovskiy, Doctor of technical sciences, on the use of cybernetics in medical diagnoses, and L. P. Krayzmer, Candidate of technical sciences, on the problems of storing information in cybernetical systems. The Section of Theory of Information, under B. R. Levin, heard and discussed 22 reports on coding theory, signal synthesis, increasing the reliability of information, detecting and isolating signals from noise background, noise immunity of reception, correlation analysis, statistics in electronic channels, and accuracy of reliability prognoses. Those participating in the Section work were: L. M. Fink, Yu. S. Lezin, Yu. L. Zorokhovich, Yu. M. Marty*nov, L. M. Mashbits, L. D. Kislyuk, G. A. Shastova, V. T. Goryainov, V. I. Tikhonov, P. V. Mazurin, I. A. Tsikin, N. P. Khvorostenko, D. D. Klovskiy, Yu. I. Samoylenko, A. A. Zyuzin-Zinchenko, V. N. Teterev, A. A. Pirogov, M. A. Sapozhkov, I. T. Turbovich, G. I. Tsemmel', O. A. Petrov, Yu. G. Polivak, G. V. Maly*shev, G. A. Ball, A. S.

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Shvyrgin, S. F. Simovskaya, I. V. Sukharevskiy, A. I. Velichkin, V. S. Borodin, Dr. D. A. Haffman (Lincoln Laboratory, MIT), A. I. Alekseyev, B. B. Gurfinkel', A. F. Terpugov, A. F. Fomin, and V. S. Bleykhman. The Section of Cybernetics, under B. S. Fleyshman, dealt with reports on the theory of systems, investigation of operations, and recognition of patterns. Participating were: V. M. Bereshnov, B. V. Gnedenko, G. P. Basharin, V. V. Ryzkov, A. A. Ydovin, A. O. Kravitskiy, A. Ye. Basharinov, N. I. Ananov, K. P. Kirdyashev, A. L. Lunts, V. L. Brailovskiy, V. A. Kondrat'yeva, N. S. Misyuk, N. A. Lepeshinskaya, O. A. Liskovets, and A. S. Mastykin. The Section of SHF Ferrite Devices, under A. L. Mikaelyan, had a report on new waveguide-ferrite devices by A. L. Mikaelyan and M. M. Koblova; a report on a circular waveguide with a longitudinally-magnetized bar by O. I. Veselov; a report on cross-shaped circulators by A. K. Stolyarov, I. P. Tyukov, and V. M. Oranzhereyev; and a report on $(0.9-10) \times 10^9$ -cps coaxial valve by K. G. Gudkov. The Section of Semiconductor Devices, under Ye. L. Gal'perin, carried reports on tunnel diodes and transistors in pulsed and rf circuits. Participating were: Kochish Miklosh

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(Hungary), T. M. Agakhanyan, Ladislaw Gaylik (Praha), V. N. Konstantinovskiy, S. A. Savel'yev, O. A. Chelnokov, I. N. Pusty*nskiy, V. A. Shalimov, Y. Y. Klimov, N. A. Netsvetaylov, Yu. I. Vorontsov, I. V. Polyakov, V. Y. Kukushkin, N. A. Khokhlachev, K. F. Berkovskaya, V. L. Kreytser, V. A. Il'in, Yu. V. Koval'chuk-Ivanyuk, I. G. Nekrashevich, V. I. Loyko, I. F. Savitskaya, D. A. Vaumin, L. A. Zubritskiy, G. P. Chursin, G. V. Bagrov, Ye. G. Belen'kov, and V. V. Borzenko. Orig. art. has: no figure, formula, or table.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi (Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 00	DATE ACQ: 06Sep63	ENCL: 00
SUB CODE: GE	NO REF SOV: 000	OTHER: 000

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L 44359-66 EWT(l)/EWT(m)/EWP(e) IJP(c) WH/GD
ACC NR: AT6022269 SOURCE CODE: UR/0000/66/000/000/0028/0031

AUTHOR: Mikaelyan, A. L. (Doctor of technical sciences, Professor); Koblova, M. M.; Melikova, I. M.; Ovchinnikova, Ya. V.; Turkina, K. Ya.

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48
B+1

ORG: none

TITLE: Investigation and design of optical gates

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya kvantovoy elektroniki. Doklady. Moscow, 1966, 28-31

TOPIC TAGS: laser radar, Faraday effect, optic equipment component, terbium compound, diamagnetism

ABSTRACT: A scheme is proposed for a simple gating device which contains a 45° polarization rotator, a 45° quartz rotator, and a polarizer. A plane polarized light beam passes through the quartz rotator, the polarizer and the active substance where under the applied field the polarization of the beam is restored to its initial condition. The reflected light is polarized identically as the beam leaving the gate is rotated 45° more by the rotator, and is either carried away or is absorbed by the polarizer. Requirements for an optical gate are maximum decoupling, minimum loss, minimum distortion, minimum reflection, lightweight, and small size. The Faraday effect was studied with special terbium-aluminum garnet. Among diamagnetic glasses studied were samples

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L 44360-66 EWT(d)/FSS-2 GD

ACC NR: AT6022272 SOURCE CODE: UR/0000/66/000/000/0033/0040

AUTHOR: Pirshin, I. V.; Koblova, M. M.; Khlystov, V. I.; Anton'yants, Ye. V.

ORG: none

TITLE: Investigation and development of optical modulators

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya kvantovoy elektroniki. Doklady. Moscow, 1966, 33-40

TOPIC TAGS: optic modulator, interferometer, laser communication, laser

ABSTRACT: Since existing optical modulators have electrooptical crystals that require high voltages, a device using a symmetrical Michaelson interferometer with double refracting diagonally cut crystals in the arms was developed. The latter are controlled by a field at right angles to the direction of propagation. The power required to control the modulator can be lowered by increasing the length of the crystal and decreasing its cross section. The power required by the modulator depends on the operating modulation frequency band; when a subcarrier is used, the voltage can be fed to the modulator by a resonance circuit. Curves are plotted for values of power as a function of the modulation band. Optimum adjustments of mirror position are given for maximum uniformity of light intensity over the beam cross section. The arms of the modulator must be identical and temperature must be controlled for best operation since the

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KOBLOVA, M.N., aspirant

Weeds in the Volga-Akhtuba Flood Plain. Uch. zap. Kab.-Balk. gos. un. no.12:81-89 '62. (MIRA 16:6)

1. Kafedra botaniki Kabardino-Balkarskogo gosudarstvennogo universiteta.
(Volga-Akhtuba Flood Plain--Weeds)

KOBLOVA, M.N., aspirant

Effect of ecologic and geographical factors on the germination of the seeds of green amaranth. Uch. zap. Kab.-Balk. gos. un. no.12:91-102 '62. (MIRA 16:6)

1. Kafedra botaniki Kabardino-Balkarskogo gosudarstvennogo universiteta.
(Amaranth) (Germination)

KOBLOVA, M.N.

Herbicides for controlling weeds in irrigated vegetable fields of the Volga-Akhtuba Floodplain. Uch. zap. Kab.-Balk. gos. un. no.14:65-78'62. (MIRA 16:6)
(VOLGA-AKHTUBA FLOODPLAIN--VEGETABLE GARDENING)
(VOLGA-AKHTUBA FLOODPLAIN--WEED CONTROL)

KOBLOVA, M.N., aspirant

Comparative study of the viability of seeds and fruits of weeds from soil samples of the Volga-Akhtuba Floodplain fields. Uch. zap. Kab.-Balk. gos. un. no.10:79-87 '61.

Weed seeds and fruits in the potato and vegetable fields of the Volga-Akhtuba Floodplain. Uch. zap. Kab.-Balk. gos. un. no.10: 89-104 '61. (MIRA 17:6)

KOBLOVA, M.A.

Processes occurring in hot climates in fields irrigated by the underground method. Gig.i san. no.5:30-31 My '53. (MLRA 6:5)

1. Uzbekskiy nauchno-issledovatel'skiy sanitarnyy institut.
(Sewage irrigation)

KOBLOVA, N.A.; KUCHMI, M.I.

Decontamination of sewage in ditches in Uzbekistan. Gig.i san. no.9:47 S '53. (MLRA 6:8)

1. Uzbekskiy nauchno-issledovatel'skiy sanitarnyy institut.
(Uzbekistan--Sewage--Purification)

KUTIKOVA, N. A.

Dissertation: "Cleaning of New Buildings of Cities and the Sanitary Evaluation of Methods of Rendering Wastes Harmless Under Soil and Climatic Conditions of Uzbek SSR." Cand Biol Sci, Acad Med Sci USSR, 28 Apr 54. (Vechernyaya Moskva, Moscow, 16 Apr 54)

SO: SUM 243, 19 Oct 1954

KOBLOVA, N. A., [illegible], SELITRENNIKOVA, L. B., [illegible], ZAYROV, K. S.

"Hygienic norms for rendering harmless the refuse under conditions of the Uzbekistan."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

ZAKHIDOV, A.Z., dotsent; SELITRENNIKOVA, M.B., kand.biologicheskikh nauk; KOBLOVA, M.A., kand.biologicheskikh nauk

K.S.Zairov's monograph "Sanitary conditions in soil disinfection and the utilization of certain wastes in Uzbekistan". Reviewed by A.Z.Zakhidov, M.B.Selitrennikov, M.A.Koblova. Med.zhur. Uzb. no.9: 67-69 S '61. (MIRA 15:2)

(UZBEKISTAN--SOIL DISINFECTION)
(ZAIROV, K.S.)